

Application No. 10/687,562  
October 11, 2005 Response to  
Office Action of July 1, 2005

### Remarks/Arguments

#### 1. Amendments to the Specification

To have a more definite and clearly defined invention, Applicant has amended the written specification. Specifically, paragraph [0025]<sup>1</sup> was amended to provide antecedent basis for claim 6, 7, 8 and 9 as originally presented. No new subject matter has been introduced by these amendments.

#### 2. Amendments to the Claims

In the Office action claims 1-20 were rejected as allegedly being anticipated by Schaffer et al. To summarize the standard, "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros., Inc. v. Union Oil Co. of California*, 814 F.2d 628 (Fed. Cir. 1987), citing, *Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 715, 223 USPQ 1264, 1270 (Fed.Cir.1984); *Connell*, 722 F.2d at 1548, 220 USPQ at 198; *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 771, 218 USPQ 781, 789 (Fed.Cir.1983), cert. denied, 465 U.S. 1026, 104 S.Ct. 1284, 79 L.Ed.2d 687 (1984). In addition, claims 1-20 were rejected as allegedly being anticipated by United States Patent Publication 2003/021557<sup>2</sup> to Willson et al. In the instant matter, claims 1, 10 and 16 were amended to more clearly distinguish the claimed invention from the cited prior art. All remaining amendments were made to ensure that the claims comport with the requirements of 35 USC

<sup>1</sup> The paragraph numbering referred to is based upon the patent application as originally filed and not as published in United States patent publication number 2005/0082253. In the patent publication, the brief description of figure 4 was erroneously broken into two paragraphs [0010] and [0011]. As a result, there is a discrepancy between the patent application as filed and the patent publication commencing after paragraph [0010].

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section 112. In addition to addressing the anticipation rejection, Applicants address an inchoate obviousness rejection, as well.

a. Claims 1 and 10

Claims 1 and 10 each defines a method for disposing a liquid on a surface of a substrate that includes, in pertinent part, disposing a plurality of spaced-apart droplets of the liquid on the surface and generating an electromagnetic field to move the liquid to form a contiguous layer of said liquid over an area of the substrate in superimposition with a first region of the template. Shaffer et al. do not teach creating of a contiguous layer of a liquid on a substrate from a plurality of spaced-apart droplets of the liquid by moving the liquid in response to an electromagnetic field.

Rather, Shaffer et al. teach employing a contiguous film from which to form columnar structures. (See column 5, lines 5-21) As a result, which is shown in Figs. 2A-C, 3A-C and 4A, and B, gaps are formed between the columnar structures which show hiatuses in the film over the area of the substrate in superimposition with the template. Moreover, Shaffer et al. do not mention disposing a liquid on the substrate as a plurality of spaced-apart droplets. Without depositing droplets on the substrate, Shaffer et al. will not recognize Applicants' problem of quickly forming a contiguous film employing an electromagnetic film. Without recognizing Applicants' problem, it is submitted that a *prima facie* case of obviousness is not present. See *In re Nomiya*, 184 USPQ 607, 612 (CCPA 1975) (finding that where prior

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<sup>2</sup> In the Office Action the publication number recited is 2003/0215577. However, Applications believes that the intended publication was 2003/0215577. As a result, Applicants present arguments based upon the teachings of United States publication number 2003/0215577.

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art fails to recognize the problem at all, the claimed invention may be deemed patentable).

Moreover, Willson et al. do not overcome the deficiencies of Shaffer et al., because Willson et al. are completely silent with respect to employing droplets. As a result, Willson et al. do not recognize the problem that Applicants sought to solve. Without recognizing Applicants' problem, it is submitted that there is no suggestion to modify the teachings of Willson et al. See *In re Nomiya*, *supra*.

Moreover, none of the remaining cited prior art references overcome the deficiencies of Shaffer et al. and Willson et al. Therefore, Applicants submit that amended claims 1 and 10 each defines a method suitable for patent protection.

b. Claim 16

Amended claim 16 defines a method that includes, *inter alia*, generating, with the template, an electromagnetic field while compressing a plurality of spaced-apart droplets between the template and the substrate to move the liquid over an area of the substrate in superimposition with the first region. Neither Shaffer et al. nor Willson et al. teach compression of a liquid between a substrate and a template. Shaffer et al. teach that a gap is present between the liquid being patterned and the template. Specifically as stated in column 4, lines 11-35, "film 110 and second material 150 define an interface 154 . . . [w]hen film 110 and second material 150 are each in a state that permits them to flow relative to one another, the structure of the film at the interface can deform in response to the electrostatic pressure and produce a lateral structure." Applicants contend that this teaching of Shaffer et al. teaches away from having a template compress against the film 110, because the template would not be flowable relative to the film,

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thereby precluding any suggestion of modifying Shaffer et al. to provide the claimed invention.

Furthermore, Willson et al. do not overcome the deficiencies of Shaffer et al., by advocating minimizing contact between a template and the liquid by maintaining a distance between the template and the liquid. See ¶ [0022]. One embodiment discussed in which contact between the liquid and the template occurs, results from the liquid moving toward the template and making contact therewith. ¶ [0029]. Apparently, the gap between the template and the liquid facilitates formation of an electrostatic source that develops between the template and the liquid to generate, in the liquid, a topography that matches the topography of the template. See ¶ [0023]. Applicants contend that modifying Willson et al. to produce the claimed method is in contravention to the teachings mentioned above. Compressing the liquid with the template would undermine, if not vitiate, the differing dielectric constants that Willson et al. advocate.

Moreover, none of the remaining cited prior art references overcome the deficiencies of Shaffer et al. and Willson et al. Therefore, Applicants submit that amended claim 16 defines a method suitable for patent protection.

### 3. Obvious-Type Double Patenting Rejections

#### a. United States Patent Number 6,908,861

In the Office action, claims 1-20 were rejected under the judicially created obvious-type double patenting rejection. Upon review of the '861 patent, Applicants note that not one of the claims defines a method as including deposition of a plurality of spaced-apart droplets nor employing compression along with an electrostatic field. As a result, Applicants respectfully

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contend that amended claims 1-20 are not obvious variants of the claims of the '861 patent.

b. United States patent application 09/905,718

In the Office action, claims 1-20 were provisionally rejected under the judicially created obvious-type double patenting rejection. Considering that this application has yet to issue as a patent, Applicants respectfully request that this rejection be held in abeyance.

4. The Non-obviousness of the Dependent Claims

Considering that the dependent claims include all of the features of the independent claims from which they depend, these claims are patentable to the extent that the independent claims are patentable. Therefore, Applicants respectfully contend that the dependent claims define a method suitable for patent protection.

Applicants respectfully request examination in view of the remarks. A notice of allowance is earnestly solicited.

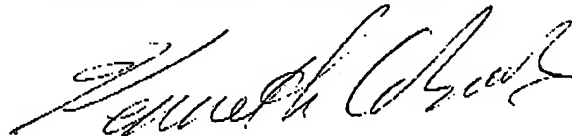
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I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to the Commissioner for Patents.

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Respectfully Submitted,



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